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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,300	09/08/2003	Eric Stephen Mattis	030296	2134
<div>23696 7590 08/29/2007</div> <div>QUALCOMM INCORPORATED</div> <div>5775 MOREHOUSE DR.</div> <div>SAN DIEGO, CA 92121</div>				
<div>EXAMINER</div> <div>NGUYEN, TRAN N</div>				
<div>ART UNIT PAPER NUMBER</div> <div>2834</div>				
<div>NOTIFICATION DATE DELIVERY MODE</div> <div>08/29/2007 ELECTRONIC</div>				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/658,300	MATTIS ET AL.	
	Examiner	Art Unit	
	Tran N. Nguyen	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 5 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claim 1, 4, 5 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Parker et al (US 3,691,562)** in view of **Rainwater (US 4345256)**.

Parker discloses an apparatus, for providing electrical coupling, comprising: a motor (13) having a hollow shaft (12) extending there through and rotatably thereby; an electrical conductor located within the hollow shaft (12) (abstract and col. 4 line 43+), and an antenna system connected to the electrical conductor and to the shaft for being rotated by the shaft.

Parker substantially discloses the claimed invention, except for the limitations of the antenna horn in the antenna system.

Rainwater, however, teaches an apparatus coupling a rotation drive means and an antenna horn comprising a motive driving device (Fig. 2, #40) being capable of rotation (Col. 2, lines 66 & 67), said motive device being rotatably connected to an antenna horn (Fig. 2, #16) rotatable about a central axis of said motive device. Antenna system equipped with an antenna horn is well known in the art because antenna horn is an essential component of an antenna system; also, incorporate the antenna horn to the Parker's electrically coupling and rotatably driving apparatus would be an obvious industrial implementations for the motor

since electric motors are well known for electrically coupling and rotating various types of antenna devices.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the disclosed apparatus by incorporating an antenna horn being rotatably connected to the apparatus for rotating about a central axis thereof, as taught by Rainwater. Doing so would provide an antenna system with an antenna horn as an essential component thereof, and such antenna horn rotatably coupled to an electrically coupling and rotatably driving motor would be an obvious industrial implementations of the motor, since electric motor is well known for electrically coupling and rotating various types of antenna devices.

2. **Claim 1, 4, 5 and 10-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Anderson et al (US 4,260,992)** in view of **Rainwater (US 4345256)**.

Anderson discloses an apparatus, for providing electrical coupling, comprising: a motor (12) having a hollow shaft (14) extending there through and rotatably thereby; an electrical conductor located within the hollow shaft (14), and an antenna system connected to the electrical conductor and to the shaft for being rotated by the shaft; particularly, Anderson discloses the hollow shaft (14) is made of electrically conductive material, which obviously function as part of the electrical conductor thereof, and the electrical conductor (24) having outer conductor (25) and center conductor (34), wherein a dielectric would be essentially part of an electrical conductor cable.

Rainwater, however, teaches an apparatus coupling a rotation drive means and an antenna horn comprising a motive driving device (Fig. 2, #40) being capable of rotation (Col. 2, lines 66 & 67), said motive device being rotatably connected to an antenna horn (Fig. 2, #16) rotatable about a central axis of said motive device. Antenna system equipped with an

antenna horn is well known in the art because antenna horn is an essential component thereof; also, incorporate the antenna horn to the Anderson's electrically coupling and rotatably driving apparatus would be an obvious industrial implementations for the apparatus since electric motors are well known for electrically coupling and rotating various types of antenna devices.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the disclosed apparatus by incorporating an antenna horn being rotatably connected to the apparatus for rotating about a central axis thereof, as taught by Rainwater. Doing so would provide an antenna system with an antenna horn as an essential component thereof, and such antenna horn rotatably coupled to an electrically coupling and rotatably driving motor would be an obvious industrial implementations of the motor, since electric motor is well known for electrically coupling and rotating various types of antenna devices.

Furthermore, Anderson discloses the hollow shaft (14) is made of electrically conductive material, which obviously function as part of the electrical conductor thereof, and the electrical conductor (24) having outer conductor (25) wherein the hollow shaft and the outer conductor (25) being placed relative to one another so that the hollow shaft (14) and the outer conductor (25) are capacitively coupled at the frequencies for which the antenna system is employed. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the disclosed apparatus by fixing the outer conductor to the shaft. Doing so would ensure the electrical connection therebetween; also, it has been held that "the use of a one piece construction...would be merely a matter of obvious engineering choice." (In re Larson, 340 F.2d 965,968, 144 USPQ 347, 349 (CCPA 1965)).

Communication

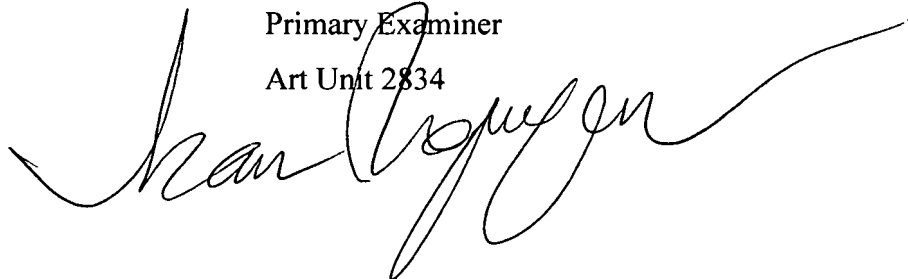
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is 571-272-2030. The examiner can normally be reached on 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. (**Note: Use this Central Fax number 571-273-8300 for all official response.**)

Do **not** use the Examiner's RightFax number without informing the Examiner first because, according to the USPTO policy, any document being sent via RightFax is treated as unofficial response and will not be officially dated until it is routed to the Central Fax.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tran N. Nguyen
Primary Examiner
Art Unit 2834

A handwritten signature in black ink, appearing to read 'Tran N. Nguyen', is written over the printed name and title.